

CLAIMS

1. A flush-closing multi-panel window assembly for a vehicle, the flush-closing multi-panel window assembly comprising:

first and second fixed window panels;

a sliding window panel that is provided between the first and second fixed window panels when the sliding window panel is in a closed position, the sliding window being flush with the first and second fixed window panels when in the closed position;

a seal carrier supported by the sliding window panel; and

an injection molded bulb seal supported by at least the seal carrier, wherein the injection molded bulb seal extends around an entire periphery of the sliding window panel so as to cover gap(s) adjacent the edge of the sliding window panel.

2. The flush-closing multi-panel window assembly of claim 1, further comprising:

an upper frame member and a lower frame member, each of the upper and lower frame members being attached to the first and second fixed window panels; and wherein each of the upper and lower frame members includes a track defined therein to allow for sliding of the sliding window panel;

a latch assembly including first and second spring biased pins adapted to slide in tracks of the upper and lower frame members, respectively, during opening and closing of the sliding window panel; and

wherein the latch assembly further includes first and second selectively actuatable members adapted to be moved toward one another so that when the first and second selectively actuatable members are moved toward one another the first and second pins are caused to exit first and second apertures and/or cut-outs defined in the upper and lower frame members, respectively, and the sliding window panel can thereafter be slid laterally in order to open the sliding window panel.

3. The flush-closing multi-panel window assembly of claim 2, wherein the bulb seal provides a biasing force against at least one of the upper and lower frame members.

4. The flush-closing multi-panel window assembly of claim 2, wherein the bulb seal provides a biasing force against at least one of the upper and lower frame members so as to cause at least part of the sliding window panel to move toward an interior of the vehicle when the first and second selectively actuatable members are moved toward one another and the first and second pins are caused to exit first and second apertures and/or cut-outs.

5. The flush-closing multi-panel window assembly of claim 2, wherein the first and second pins are at least partially located in respective apertures defined in the seal carrier.

6. The flush-closing multi-panel window assembly of claim 2, wherein the first and second selectively actuatable members each comprise an approximately L-shaped portion.

7. The flush-closing multi-panel window assembly of claim 1, wherein the bulb seal is made of a flexible elastomer material.

8. The flush-closing multi-panel window assembly of claim 1, wherein the bulb seal is injection molded so as to include only one piece that is supported by the seal carrier.

9. The flush-closing multi-panel window assembly of claim 1, wherein the bulb seal covers a gap between the sliding panel and the first fixed window panel, and also covers another gap between the sliding panel and the second fixed window panel.

10. The flush-closing multi-panel window assembly of claim 9, wherein the bulb seal covers a gap between the sliding panel and a first appliqué, and also covers another gap between the sliding panel and a second appliqué, wherein the first and second appliqués are located on opposite sides of the sliding window panel.

11. The flush-closing multi-panel window assembly of claim 10, wherein the first and second appliqués are located above and below the sliding window panel, respectively.

12. The flush-closing multi-panel window assembly of claim 1, wherein the bulb seal comprises a base portion that includes first and second recesses formed in first and second opposing surfaces thereof, the first recess for receiving an adhesive for bonding the bulb seal to the seal carrier and the second recess for receiving at least part of an end of a flexible lip of the bulb seal.

13. The flush-closing multi-panel window assembly of claim 1, wherein the bulb seal comprises a base portion that is integrally formed with a flexible lip portion, wherein one end of the lip portion is attached to the base portion and the other end of the lip portion is not attached to the base portion but may optionally contact the base portion when the flexible lip portion is biased inwardly toward the base portion.

14. The flush-closing multi-panel window assembly of claim 13, wherein adhesive or tape is provided in a recess defined in the base portion for adhering the bulb seal to the seal carrier.

15. A flush-closing multi-panel window assembly for a vehicle, the flush-closing multi-panel window assembly comprising:

first and second fixed window panels;

a sliding window panel that is provided between the first and second fixed window panels when the sliding window panel is in a closed position, the sliding

window being flush with the first and second fixed window panels when in the closed position;

first and second appliques located above and below the sliding window panel when the sliding window panel is in the closed position; and

wherein at least one of the first and second appliques includes a main body portion comprising a first polymer based material and an abutting portion comprising a second polymer based material that is softer than the first polymer based material, wherein the abutting portion of the applique which comprises the softer material is located at an edge of the applique which abuts a corresponding edge of at least one of the fixed window panels.

16. The flush-closing multi-panel window assembly of claim 15, wherein said first applique comprises said main body portion comprising the first polymer based material and first and second spaced apart abutting portions comprising a second polymer based material that is softer than the first polymer based material, wherein the first and second abutting portions of the applique which comprise the softer material are located at opposite edges of the applique so as to abut corresponding edges of the first and second fixed window panels, respectively.

17. The flush-closing multi-panel window assembly of claim 15, wherein the abutting portion comprising the second polymer based material that is softer than the first polymer based material is located on at least two edges of the applique so as to abut respective edges of the first and second fixed window panels.